

NOV 29 1973

APOLLO/SOYUZ TEST PROJECT (ASTP) DIRECTIVE NO. 1A

TO: DISTRIBUTION

FROM:

*Chester M. Lee*  
PROGRAM DIRECTOR, ASTP

SUBJECT: ASTP Directives and Documents, Control Milestones, Flight  
Hardware and Major Operational and Test Facility Assignments

OFFICE OF PRIME RESPONSIBILITY (OPR): ASTP Program Budget and Control (MAP)

REFERENCES: (a) Letter from M/Associate Administrator for Manned  
Space Flight (with concurrence by AD) to Directors,  
KSC, MSFC, JSC, subj: "Apollo/Soyuz Test Project,"  
June 17, 1972

(b) Apollo/Soyuz Test Project Approval Document (PAD), 10/6/73

(c) NMI 8020.20, November 28, 1972, ASTP Management

I. PURPOSE

This directive defines the ASTP directives and documents, control milestones, flight hardware, development and test hardware, and major operational and test facility assignments to be used as a baseline for detailed project planning. Responsibilities of Center Program Managers are also established. The requirements of this directive shall govern if there is a variance with any other ASTP directive.

II. ASTP DIRECTIVES AND DOCUMENTS

Reference (a) establishes the ASTP management system to be used and defines management responsibilities. References (b) and (c) further define management responsibilities. Enclosure A lists those Program Directives and documents which are applicable to the ASTP. In general, the Apollo Program Directives and documents are directly usable on ASTP when the references to the lunar mission are deleted.

III. CONTROL MILESTONES

Enclosure B designates certain major or key program events as control milestones. Control milestones are those milestones which represent US/USSR or intercenter programming events, significant development tests, tests which constrain flight missions, deliveries of stages, modules, and ground support equipment and software to KSC. Changes to these milestones require ASTP Program Director approval.

IV. FLIGHT HARDWARE ASSIGNMENTS

The major flight hardware assignments for ASTP are presented in reference (b). Enclosure C lists detailed flight hardware assignments. Changes to this list must be approved by the Program Director.

V. MAJOR OPERATIONAL AND TEST FACILITY ASSIGNMENTS

Enclosure D lists the major operational and test facilities required by ASTP. Changes to this list must be approved by the Program Director.

VI. RESPONSIBILITIES

Center Program Managers are responsible for the implementation of the requirements of this directive and for requesting changes to the control milestones and hardware assignments under their management responsibility. Center Program Managers will notify the Program Director immediately whenever a situation exists or is anticipated that will impact or potentially impact controlled schedules.

ENCLOSURES

- A - List of ASTP Program Directives and Documents
- B - ASTP Control Milestones
- C - Detailed Flight Hardware Assignments
- D - KSC, JSC, MSFC - Major Operational and Test Facility Assignments

ASTP PROGRAM DIRECTIVES AND DOCUMENTS

The following directives and documents are applicable to the Apollo/Soyuz Test Project. Apollo Program Directives (APD Numbers) listed are applicable in their present form.

<u>DIRECTIVE NO.</u>	<u>TITLE</u>	<u>DATE</u>
ASTP-1A	ASTP Directives & Documents, Control Milestones, Flight Hardware & Major Operational & Test Facility Assignments	
ASTP-2 A	ASTP Coordination with the Office of International Affairs	October 30, 1973
ASTP-6	Key Inspection, Review & Certification Checkpoints & Their Documentation	June 25, 1973
ASTP-8	Apollo Flight Readiness Review	June 25, 1973
APD-19C	Apollo Flight Evaluation Reporting Requirements	Mar. 4, 1970
APD-21A	Monthly Weight & Performance Data Submittal Requirements	Jul. 21, 1971
APD-23	Saturn/Apollo Tank & Fluid Materials Testing Requirements	Dec. 6, 1967
APD-26B	Preparation of Test & Checkout Plans & Procedures at KSC	Dec. 6, 1967
	Addendum #1 to APD 26B	Dec. 8, 1970
APD-31A	Apollo Systems Safety Program Requirements	Nov. 5, 1970
APD-32D	Quality & Reliability Assurance Auditing	Oct. 7, 1970
APD-33A	Center Responsibilities in the Apollo Program	Aug. 5, 1968
	Addendum #1 to 33A	Oct. 5, 1972

<u>DIRECTIVE NO.</u>	<u>TITLE</u>	<u>DATE</u>
APD-34C	Apollo Program CCB Controls & Requirements	Nov. 6, 1969
APD-36	Apollo Program Equipment Cannibalization Control	Jan. 8, 1968
APD-39	General Standard for Preservation Packaging, Packing, Marking, Handling, & Shipping of Apollo Space Vehicle Components, Parts & Associated Equipment	Apr. 22, 1968
APD-40B	Launch Critical Spares Management	Jun. 25, 1971
APD-43A	Apollo Mission Implementation Plan	Dec. 2, 1969
APD-44A	Apollo Program Nonconformance Reporting & Corrective Action	May 27, 1969
APD-46B	Apollo Mission Rules	Oct. 15, 1970
APD-47	Apollo Inter-Center Interface Management	Dec. 16, 1968
APD-48	Apollo Postflight Crew Debriefings	Jan. 28, 1969
APD-55A	Technical Investigations	Dec. 30, 1970
APD-56	Technical Support for Resolving Significant Technical Problems from Space Vehicle Rollout through Mission Completion	Nov. 12, 1970
<u>DOCUMENT NO.</u>		
NHB 8080.1A	Apollo Test Requirements	Jun. 1971
SE 005-001	Apollo/Soyuz Test Project Specification	Sept. 25, 1973
NHB 8040.2	Apollo Configuration Management Manual	Jan. 1970

DOCUMENT NO.

NHB 5300.2

Apollo Metrology Requirements  
Manual

Dec. 1965

Mission Implementation Plan

(Prepared for  
each mission)

Program Support Requirements  
Document

(Prepared for  
each mission)

NASA R&QA DOCUMENTS

DOCUMENT NO.

NHB 5300.1A

Apollo Reliability & Quality  
Assurance Program Plan

Jul. 1966

NHB 5300.4 (1A)

Reliability Program Provisions for  
Aeronautical & Space System Con-  
tractors

Apr. 1969

NHB 5300.4 (1C)

Inspection System Provisions for  
Aeronautical & Space System  
Materials, Parts, Components &  
Services

Jul. 1971

NHB 5300.4 (2B)

Quality Assurance Provisions for  
Government Agencies

Nov. 1971

NHB 5300.4 (3A)

Requirements for Soldered Electrical  
Connections

May 1968

NHB 5300.4 (3C)

Line Certification Requirements for  
Microcircuits

May 1971

NHB 5300.4 (3D)

Test Methods & Procedures for Micro-  
circuit Line Certification

May 1971

NHB 5300.4 (3E)

Radiograph Inspection for Micro-  
circuits

Oct. 1971

NHB 5300.4 (3F)

Qualified Products Lists Requirements  
for Microcircuits

Jun. 1972

NHB 5300.7

Management of Government Quality  
Assurance Functions for Supplier  
Operations

Apr. 1966

# ASTP CONTROL MILESTONES

ASTP DIRECTIVE NO. 1A  
ENCLOSURE B  
PAGE 1 OF 1

	1972	1973	1974	1975
DOCKING SYSTEM PDR	10/31 ▼			
DOCKING SYSTEM FINAL CDR		4/30 ▼		
COMPLETE FLIGHT L/V MODS		5/16 ▼		
EXPERIMENTS APPROVAL BY MS FEB		8/10 ▼		
US/USSR JOINT FINAL DESIGN ACCEPT. REVIEW (DOCKING SYSTEM)		12/1 ▼		
COMPLETE DM-1 THERMAL VAC QUAL TEST			6/15 ▼	
COMPLETE FLIGHT DM (DM-2) SYSTEMS INSTALL.			7/21 ▼	
COMPLETE FLIGHT SPACECRAFT MODS			9/15 ▼	
FLIGHT SPACECRAFT (CSM-111) ON DOCK AT KSC			9/27 ▼	
FLIGHT L/V (SA-210) ON DOCK AT KSC			9/30 ▼	
COMPLETE US/USSR JOINT DOCK SYSTEM (DS-3) QUAL TEST.			9/30 ▼	
FLIGHT DOCKING MODULE (DM-2) ON DOCK AT KSC			10/31 ▼	
US/USSR JOINT FINAL EQUIP ACCEPT RE /IEW (DOCKING SYSTEM)			11/1 ▼	
US/USSR JOINT FINAL PRE-FLIGHT COMPATIBILITY TESTS (FLIGHT DOCK SYS DS-5)			12/23 ▼	
FLIGHT DOCK SYS (DS-5) ON DOCK AT KSC			1/3 ▼	
US/USSR JOINT FINAL FLIGHT READINESS REVIEW				5/1 ▼
LAUNCH				7/15 ▼

NASA HQ MA73-6508  
REV. 11-2-73

DETAILED FLIGHT HARDWARE ASSIGNMENTS

General

This enclosure includes the flight hardware assignment summary for the ASTP mission.

The prelaunch checkout and launch schedule for ASTP are based on the project policy that flight hardware will be delivered to KSC on the date specified in Enclosure B of this directive and will arrive with all manufacturing work and predelivery testing completed, unless specifically noted otherwise. The requirements of APD 34C will apply to all hardware which does not meet this requirement.

CSM's BLK II

CSM 111

CSM 119 (a)

ADAPTERS

SLA TRUSS #1

SLA TRUSS #2 (b)

DOCKING MODULES

DMOD #2

DMOD #1 (Refurbished after use as thermal vacuum test module)(b)

DOCKING SYSTEMS

DS-5 & DS-6

DS-7 (b)

SLA's

SLA #18

SLA #25 (a)

- (a) Backup (Presently assigned for Skylab rescue)
- (b) Backup

G&N

G&N #215

G&N #213 (a)

SUITS

Maximum use of previously qualified hardware

Flight -9 (New Procurement)

Training-6 (Refurbished)

LAUNCH VEHICLES

S-IB (210, 209 (a))

S-IVB (210, 209 (a))

S-IU (210, 209 (a))

(a) Backup (Presently assigned for Skylab rescue)



MAJOR OPERATIONAL AND TEST FACILITY ASSIGNMENTS

The following list of major facilities will be required to be in an operational status in the time periods indicated.

KSC

<u>O&amp;C BUILDING</u>	<u>NO. REQD</u>	<u>PERIOD</u>
Altitude Chamber	2	
CSM		Aug 74 - Jul 75
Docking Module*		Oct 74 - Jul 75
High Bay	1	Sep 74 - Jul 75
ACE Stations	2	Sep 74 - Jul 75
 <u>LC-39</u>		
Low Bay, S-IVB Cell	1	Oct 74 - Jul 75
High Bay 1	1	Jan 74 - Jul 75
VAB Facilities	1	Jan 74 - Jul 75
Firing Room		
Primary - FR #3	1	Feb 74 - Jul 75
Backup - FR #2	1	Jan 74 - Jul 75
Training Room #4 (DEE-6 Computer Area)	1	Feb 74 - Jul 75
Crawlers	2	Feb 75 - Jul 75
LUT-1	1	Nov 74 - Jul 75
Mobile Service Structure	1	Feb 75 - Jul 75
PAD B	1	Feb 75 - Jul 75

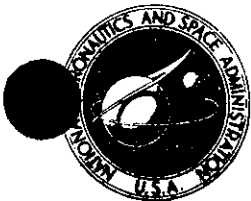
\*The former LM altitude chamber will be used as a test stand for some DM checkout. No altitude run on the DM will be made at KSC.

JSC

	<u>NO. REQD.</u>	<u>PERIOD</u>
Thermal Vac Facility	1	Mar 74 - Oct 74
Eight Foot Vac Chamber (ECLSS Breadboard)	1	Jul 73 - Jul 75
Dynamic Docking Test Facility	1	Aug 73 - Oct 74
Mission Simulators		
Command Module	1	Mar 74 - Jul 75
Docking Module	1	May 74 - Jul 75
ACE Station (Bldg 32, Space Environmental Simulation Lab)	1	Feb 74 - Oct 74
Mission Operations Control Room	1	Feb 75 - Jul 75
Telemetry & Communications Systems Div. Facilities	1	Jan 74 - Sept 75

MSFC

Saturn IB Systems Development Facility (SDF)	1	May 74 - Jul 75
Huntsville Operations Support Center (HOSC)	1	Feb 75 - Jul 75



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
JOHN F. KENNEDY SPACE CENTER  
KENNEDY SPACE CENTER, FLORIDA 32899

JAN 11 1974

REPLY TO  
ATTN OF:

AA-MFP-1 (73-12-10)

MEMORANDUM

TO: Distribution

FROM: AA/Manager, Sciences, Applications, Skylab and ASTP Programs

SUBJECT: Apollo-Soyuz Test Project (ASTP) Directive No. 1A, dated  
November 29, 1973, Subject: ASTP Directives and Documents,  
Control Milestones, Flight Hardware and Major Operational  
and Test Facility Assignments

OMSF Apollo-Soyuz Test Project (ASTP) Directive No. 1A has been received  
by this office, and a copy is transmitted for your information. Imple-  
mentation of this revision is as noted in the attached briefing note.

*William H. Rock*  
William H. Rock

Enclosures

1. ASTP Program Directive No. 1A
2. Briefing Note to Dr. Debus

Distribution:

Skylab-ASTP Distribution M

Dr. Debus:

JAN 8 1974

SUBJECT: Apollo-Soyuz Test Project (ASTP) Directive No. 1A

4 1/10

The directive entitled "ASTP Directives and Documents, Control Milestones, Flight Hardware and Major Operational and Test Facility Assignments," dated November 29, 1973, establishes baselines in these areas for detailed project planning and also establishes the responsibilities of Center Program Manager.

The revision consists of changes in applicable references and an update of applicable program directives, control milestones, detailed flight hardware assignments, and major operational and test facility assignments.

Implementation of ASTP Directive 1A is proceeding in accordance with the briefing note of November 20, 1972 for ASTP Directive 1. The following new directives have been issued:

- a. KPD 7600.2/AA, "KSC Apollo/Soyuz Test Project (ASTP) Documentation Plan"
- b. KPD 8600.2/AA, Ch. 1, "KSC Apollo-Soyuz Test Project (ASTP) Management Plan"
- c. KPD 8610.4/AA, "KSC Operations Plan for Apollo/Soyuz Test Project (ASTP)"

The Program Mission and Schedules Baseline Directive is in process of preparation. This document will reflect the revised Control Milestones, Flight Hardware Assignments, and Major Operational and Test Facility Assignments.

The above new directive will be given the usual distribution to the second level directorates and those individuals having primary interest in the program..

*William H. Rock*  
William H. Rock